

MONTANA DEPARTMENT OF ENVIRONMENTAL
QUALITY
NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM
DESIGNATION FORM

DATE: June 16, 2008

APPLICATION SUBMITTAL DATE(S): August 1, 2006, October 18, 2006, January 2, 2007, and January 4, 2007, February 25, 2008 and May 30, 2008

SYSTEM MANUFACTURER/DESIGNER: HDR Engineering Inc.

SYSTEM NAME(S): Activated Sludge / Biological Nutrient Reduction / Membrane Filtration

DESIGNATED TREATMENT LEVEL¹: Level 2 (Can use 7.5 mg/L for effluent nitrogen concentration for subsurface wastewater treatment system in nitrate dilution analysis)

CONDITIONS:

- A. This approval is only for HDR activated sludge/biological nutrient reduction systems that have a design flow over 5,000 gallons per day. This requirement is due to the relatively high operation and maintenance requirements for this system that are less likely to be met for smaller systems.
- B. This approval does not extend to systems that serve facilities with either highly variable wastewater flows or wastewater quality. These facilities include but are not limited to schools, churches, and camps. To ensure consistent wastewater flows, this approval is valid only for facilities where at least 90% of the design wastewater flow is coming from residential units (or commercial units producing residential-strength wastewater) where consistent year-round occupancy/use is anticipated.
- C. Due to concerns regarding temperature impacts on the denitrification process, all of the equalization, anoxic and aeration basins shall be located inside a fully enclosed building that is maintained at a minimum temperature of 50 degrees Fahrenheit year-round.
- D. This approval is also valid for HDR systems that have additional treatment steps, such as disinfection, as long as the additional treatment does not affect the basic denitrification treatment processes.

APPROVED BY: Eric Regensburger

NOTES:

1 The definitions of level 1a, level 1b, and level 2 are in ARM 17.30.702(9), (10) and (11), respectively.